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Docket No. 10005399-1

COLOR INTERCHANGEABLE SIDE PANELS VIA MOUNTING PLUGS

Field of the Invention

The present invention relates generally to computer cases, and more particularly, to computer cases having colored plastic sections covering a large portion of the exterior surfaces of the computer case. Even more particularly, the present invention relates to easily removable color side panels for a computer case.

Background of the Invention

Until recently, almost all home personal computers had beige cases. The same was true for computer monitors. However, more recently, personal computers including the computer cases and computer monitors have become fashion accessories for the home and office. It is desirable to customize the appearance, and especially, the exterior color of the personal computer. Instead of beige, personal computers and monitors now often have green, red, blue and violet cases. Other bright colors are also being used. Because of the large number of colors being used and because the computer case is standardized, it would be difficult for a computer manufacturer to predict which color a consumer might want to use to customize their computer. Thus, a need exists for a method and apparatus in which a consumer can easily add or change the color of the computer case.

Further, a need exists for an easy method and simplified apparatus for covering a large portion of the computer case, and more specifically, the side panels of the computer case. It is desirable to cover up as much as the computer case as possible to create a "clean" appearance. A need exists in the art for a

method and apparatus to cover portions of the computer case to create this "clean" appearance.

Summary of the Invention

It is, therefore, an object of the present invention to provide side panels and fasteners which permit a customer to change the appearance of their personal computer to their own personal style.

Another object of the present invention is to provide a kit usable by a consumer for changing the color of the computer case.

Still another object of the present invention is to provide a method and apparatus in which a consumer can add or change the color of the computer case with little risk of damaging the color panels.

Another object of the present invention is to provide a method and apparatus in which a consumer can add or change the color of the personal computer case.

The present invention is directed to a method and apparatus in which a consumer, without technical skill or special tools can quickly and easily change or add a color to the computer case of their personal computer. Because of the large number of available color panels, it is necessary to provide an aftermarket kit in which the consumer can customize the computer case. Advantageously, this permits the consumer to have a computer case in green, blue, red, violet, etc. Also, advantageously, the consumer merely needs to remove a plurality of hole plugs and then install the color panels using supplied attachment feet or mounting plugs.

These and other objects of the present invention are achieved by providing a kit including a pair of cover panels for attachment to opposite side panels of a computer case. Each of the cover panels has a plurality of holes and each of the opposite side panels of the computer case has a corresponding plurality of holes. A plurality of elastomeric feet are insertable through one of the holes in the cover

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panel and through the corresponding hole in the computer case for retaining each of the pair of cover panels on the opposite side panels of the computer case.

The foregoing and other objects of the present invention are provided by a method of installing a color panel on a computer case. The color panel has a plurality of holes. The computer case has at least one panel. One panel has a plurality of holes corresponding in location to the plurality of holes in the color panel, including inserting a plurality of elastomeric feet each through one of the holes in the color panel and through the corresponding hole in the one panel to secure the color panel on the computer case.

The foregoing and other objects of the present invention are provided by a computer case including opposite side panels having a plurality of holes. The computer case has a pair of cover panels for attachment to the opposite side panels. The computer case has a plurality of elastomeric feet each insertable through one of the holes in the cover panel and through the corresponding hole in the computer case for retaining the pair of cover panels on the opposite side panels of the computer case.

Still other objects and advantages of the present invention will become readily apparent to those skilled in the art from the following detailed description, wherein the preferred embodiments of the invention are shown and described, simply by way of illustration of the best mode contemplated of carrying out the invention. As will be realized, the invention is capable of other and different embodiments, and its several details are capable of modifications in various obvious respects, all without departing from the invention. Accordingly, the drawings and description thereof are to be regarded as illustrative in nature, and not as restrictive.

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Brief Description of the Drawings

The present invention is illustrated by way of example, and not by limitation, in the figures of the accompanying drawings, wherein elements having the same reference numeral designations represent like elements throughout and wherein:

Figure 1 is a perspective view of a computer case including feet for attaching the color panel to the side panel of the computer case;

Figure 2A is a top plan view of a color panel according to the present invention;

Figure 2B is a cross-sectional view taken along lines 2B-2B in Figure 2A;

Figure 2C is a perspective view of the side cover panel of Figure 2A with certain reinforcement ribs on the interior surface of the cover panel illustrated;

Figure 3A is a top plan view of a side panel without vents;

Figure 3B is a perspective view of the side panel of Figure 3A;

Figure 4A is a top plan view of an alternative side panel with vents;

Figure 4B and 4C are side elevation views of the side panel of Figure 4A;

Figure 4D is a perspective view of the side panel of Figure 4A;

Figure 5A is a front side elevational view of an attachment foot according to the present invention;

Figure 5B is a left side elevational view of the attachment foot of Figure 5A;

Figure 5C is a top plan view of the attachment foot of Figure 5A; and Figure 5D is a perspective view of the attachment foot of Figure 5A.

Best Mode for Carrying Out the Invention

Refer now to Figure 1 where a tower case 20 for a personal desktop computer is depicted. The computer case 20 includes a central portion 40, a right side panel 30 and a left side panel 32 (not shown). The majority of the computer case 20 is formed of a beige painted metal cabinet as is standard for most personal

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desktop computers. The central portion 40 includes a plastic molded part 42 which covers a majority of the central portion 40 typical beige painted case 20. The plastic portion 42 is manufactured from a colored plastic and is adapted to accessorize the personal computer case 20. Typically, the plastic portion is molded in a single color, for example, violet. However, many consumers may want green or red necessitating the removal of the violet plastic portion 42. To accomplish this, the central portion 42 includes front and top pieces which pop off. Hooks are used to attach the front and top pieces which is not relevant to the present invention.

In order to cover additional exterior surfaces of the personal computer, according to the present invention, a pair of plastic molded cover panels can be attached to the metal side panels 30, 32 of the computer case 20. The side panels 50, 60 would preferably be the same color as the central portion 42.

As shipped from the factory, the computer case 20 will include four small rubber feet 52 on each side panel 30, 32. If the customer chooses to purchase a color upgrade kit, the customer can change the look of their PC to match their own personal style. As previously mentioned, the central portion 42 could be removed and for the side panels 50, 60, the customer would remove the feet 52, add the new color plates 50, 60, over the existing side panels 30, 32 and attach the four feet 52 to each side panel 30, 32. Advantageously, using the present invention, no special tools are needed. The installation is very straight forward and easy for a customer in the field to perform. Also, advantageously the consumer can easily change the color and appearance of the computer case without special tools and with little risk of damaging the color panels.

Several side panel configurations are required depending on the construction of the particular side panel 30, 32. For example, in Figures 2A-2C and 3A-3B, two cover panels are depicted which are identical except that the Figure 2A cover panel has a vent located in a lower central portion thereof. As depicted in Figures 2A-2C, the side panel would be used to cover the left side

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cover 32 and the Figures 3A and 3B cover panel would be used to cover the right side panel 30. As depicted in Figures 2A-2C and Figures 3A-3B, the exterior periphery of the cover panel is non-symmetrical relative to a horizontal center line but is symmetrical with respect to a vertical center line. Preferably, the interior surfaces of the cover panels 50, 60 conform closely to the exterior surface of the side panels 30, 32. As depicted in Figures 2A and 3A, there is a flat central portion 62. Four through holes 64 are located at the corners of the flat central portion 62. As depicted in Figure 2A, a vent 66 is located in a lower central portion of the flat central area 62. The vent 66 would conform in size to a vent formed in side panel 32 (not shown). It may be preferable, for efficiency purposes, to use the same side panel 60 for both the right and left side color panels. This would eliminate the possibility of having the consumer install the left side panel on the right cover panel and block the vent in the side panel 30. It would also reduce the number and types of parts required for this customer upgrade. If a consumer purchases a color upgrade kit then the upgrade kit would include identical side panels 60 not unique to each side. When the color panels 60 are assembled there will be venting holes 66 on both sides, even though only the left side vents are functional.

Extending from the central portion of 60 is a central curved portion 70, a left curved portion 72, a right curved portion 74 and a bottom curved portion 76. Connecting the top curved portion 70 and the right curved portion 74 is a right upper corner curved portion 78. Connecting the right curved portion 74 and the bottom curved portion 76 is a lower right corner portion 80. Connecting the left curved portion 72 and the bottom curved portion 76 is a left corner curved portion 82. Connecting the top curved portion 70 and the left curved portion 72 is a left upper corner curved portion 84. Curved portion 72 and 74 are symmetrical with respect to one another. Lower curved portion 76 does not extend outwardly from center curved portion 62 as does the rest of the curved portions. As previously mentioned, preferably the curved portions 70-84 conform closely to the shape of

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the side panels 30, 32. The exterior surface of the side panels 30, 32 are flat and the curved portions are all internal to the side panels 30, 32.

Figure 4A-4D depicts an alternative version of the side panel. In this version, the side curve portions which extend from the central flat portion 62 are symmetric with respect to both the vertical and horizontal centerlines.

Refer now to Figures 5A-5D where a rubber foot 100 according to the present invention is depicted. In Figure 5A, the rubber foot 100 includes a button portion 102 and the retention portion, generally indicated at 104. The button portion 102 has a rounded outer surface 106 and a flat inner surface 108. Extending downwardly from surface 108 are two legs 110 which each have angled surfaces 112 to facilitate insertion of the portion 104 through cover plates 50, 60 and through side panels 30, 32, respectively. A pair of shoulder surfaces 114 engage inner surfaces of the side panels 30, 32, respectively, when the rubber foot 100 is inserted through the panels. In operation, the legs 110 will deflect inwardly, that is, towards each other when surfaces 112 engage holes 64 and holes in the side panels. Once the surfaces 112 have cleared the holes 64, shoulder 114 will engage the inner surfaces of the side panels 30, 32. The distance between surface 108 and 114 is sufficient to reliably hold the cover panels 50, 60 in secure contact with the side panels 30, 32, respectively.

It will be readily seen by one of ordinary skill in the art that the present invention fulfills all of the objects set forth above. After reading the foregoing specification, one of ordinary skill will be able to affect various changes, substitutions of equivalents and various other aspects of the invention as broadly disclosed herein. It is therefore intended that the protection granted hereon be limited only by the definition contained in the appended claims and equivalents thereof.